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CACTUS
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OF GREAT BRITAIN

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Vol. 26 *MAY, 1964* *No. 2*

THE CHAIRMAN INTRODUCES YOUR NEW PRESIDENT

On 18th February last, at the Annual General Meeting of the Society it was unanimously resolved that Mrs. D. Shurly be elected President of the Society for the year 1964.

This appointment was prompted not only as a mark of respect for our late President, Mr. Ernest Shurly. Some measure of this respect was, of course, present but the influence of Mrs. Shurly has, since the idea of the Society was first born, been behind our late President in full measure. I feel sure that she has on many occasions sustained him in his efforts in addition to aiding him with the many tasks carried out for us in their home. Of these tasks I need only instance the despatch of our Journals and the Booklets.

Mrs. Shurly attends the majority of our meetings and her merry aspect is always a comfort to nervous speakers and a warming influence on new members. When called upon to speak she does so with authority which in the past has been no wit diminished by the presence of her late husband. She is well known internationally through the I.O.S. and Mr. Shurly's many overseas contacts.

In honouring her the Council is confident that the members have brought credit upon themselves and much grace to the Presidential chair. It is felt, too, that the Society will be giving back to Mrs. Shurly some small part of that which she and her late husband put into it.

A. W. Heathcote,
Chairman

FROM THE PRESIDENT

It is with pride that I write these few lines to say how honoured I felt when you elected me to the dignity of my late husband's position as your President.

I sincerely hope for the continued success and growth of the Society and heartily welcome all the new and younger members who are joining our ranks.

Who knows? It may lead to many successful marriage ventures now that Mr. Maddams and his bride have shown the way! We wish them the very greatest happiness now and in the future.

As flowers flourish in a fertile soil so the enthusiasm of our members will spotlight the growth and influence of our Society. So go to it!

I hope each and all of you have a very successful year with your plants.

I am writing this in sunshine at my brother's home and hope it augurs well for the coming summer when we shall all be happy.

Dora Shurly

CACTUS CULTURAL NOTES

by A. BOARDER

By the time this Journal reaches members I hope that the weather will be more kind than it is at the time of writing. As I write on 2 April, it appears more like January than April. It is almost a miracle that we are able to grow cacti at all in such changeable weather. After an open January and February, we were looking forward to a good spring, instead we had a March which was much worse than either of the preceding two months. According to my diary there were only three days in March when it was not cold. Then on 15 March, there was over two inches of snow, more than we had had all the winter. February being so open had encouraged the plants to start growing and many flower buds had appeared. I had discontinued using my oil lamp in the greenhouse and relied only on my electric cable heating. Although the thermostat was set at 44° F., I found that on several nights in March, the thermometer had been down to 40°F.

On 2 April, I lit my lamp in the greenhouse once again, and so now I expect that at last the weather will turn warmer. I have noticed for many years that as soon as 'Summer Time', is introduced the weather turns icy cold again. Still for all the grumbles about it we still keep optimistic and look forward to many flowers. With many of the cacti it is imperative to get the plants to grow well if many flowers are to be expected. On most of the plants the flowers only appear on the new growth, and if a plant makes little if any growth one year, it cannot be expected to flower well the following year. How then can we ensure that our plants do grow well. My wife found the answer the other day in a women's journal. A letter stated that the writer's friend had found the way to deal with obstinate growing cacti. She just talked to them and they started to grow. Well this is a new way to me, I wonder which language she used? It reminds me of a pet shop dealer in Blackburn who told me that he used to place an African grey parrot outside his shop all day. One day he saw a little old lady chatting away to the parrot for a long time. The parrot had its head on one side and appeared interested. My friend said, "T'old lady chatted away, saying, 'Popsey Woppsey' and so on, she didn't know what she were talking about, but parrot did".

If we examine some of the Genera and see how they flower we will notice that many kinds flower either at the areole or near it. The *Mammillarias* are one Genus which does not flower at the areoles but at the axils, the point between the tubercles. Once a *Mammillaria* has flowered at an axil it is not likely to flower again from the same spot. Also if a ring of flowers has appeared round the plant, no more flowers will be produced below that ring. This means then, that if new growth is not made above the last flowering positions, few if any can be expected the following year. If a *Mammillaria* only produces a very few flowers right at the top of the plant, (the growing centre), it is a sure sign that this particular plant did not make much new growth the previous season.

Another Genus which emphasises this occurrence is *Astrophytum*. All species only flower on the newly formed areoles, and the more new growth the plant makes the more flowers are produced at the new areoles. A healthy growing *Astrophytum* will flower at every areole as it appears from the growing centre. If then no new growth is made no flowers can be expected. Consider the Genus *Notocactus*. How often does one see a flower produced down the side of a plant. The buds usually appear at or near the growing centre, and if a flower ever appears lower down on a plant it is a freak flowering and not by any means normal. The same can be said of the *Gymnocalyciums*. The flowers again appear at or near the growing centre. With the Genus *Lobivia* it is probable that many flowers will be formed on the sides of the plant but even then it is unusual for a flower to appear lower down on the plant than the flowering position of the previous year. The *Echinocactus* will also invariably flower near the growing centre and so it can be seen that the more these plants can be encouraged to make fresh growth the more flowers can be expected the following season.

How, then can we encourage our plants to grow well? I think one of the most important points is to repot as soon as the plant has grown too large for its pot or when the soil has lost all its nourishing properties. It does not take very long for a plant to take all the goodness from a pot of soil. I know that extra fertilisers can be added, and this is all right as long as one knows that the soil is in a good enough condition for the plant to take advantage of the fertilisers. If the soil has packed down so tightly that no air can enter it, it is probable that even if fertilisers are added they will not be of much benefit to the plant. I am sure that all healthy plants which are growing well benefit from an annual repotting.

Many members are attracted by the rock-like plants such as the *Ariocarpus*, but when they purchase them disappointment often follows. These plants are imported and usually without any live roots. It is also rather difficult to get fresh roots to form. Many such plants never grow on to healthy plants. If these plants are bought without roots in the winter it is almost impossible to get roots to form. It is only when plenty of sunshine can be expected that the roots are likely to grow. Experienced cactus growers are able to get most of these plants to root and grow. When such cacti are received it is a good plan to set them in a rooting medium only. The usual growing compost would probably cause the plant to rot. A mixture of equal parts peat and sharp sand is a good rooting medium and

the pot of this compost should be embedded in another pot. This outer pot is the only one watered directly. The dampness which will percolate through the inside pot will be enough to encourage roots to form. Only when a good root system is grown should the plant be potted up into its final compost. Even this should be very porous and water must always be given with care. Over-watering, even when the first roots have formed, could still cause the plant to rot and die.

There are several of these *Ariocarpus* often offered for sale as well as *Strombocactus* and similar types. They may look very weird and rock-like but they definitely are not for the amateur. Although the plants mentioned above can be raised from seed it takes a long time for a plant to get to a reasonable size even with fairly expert treatment.

Each year appears to bring along some new *Mammillarias*, some good, others apparently very near in type to others already in the collection. One rather new one to me, is *M. shieleana*. This is somewhat similar to *M. shiedeana* but has longer spines. It has the same yellowish-green colour and looks attractive. My two small seedlings are already budded for flower. I have found that *M. schiedeana* will also flower when very small, but this one usually flowers in late autumn. Another fairly new one is *M. schwartzii*, this is a very white spined plant, which seems very caespitose. It resembles a *M. bocasana* without hooks. Another new one to me is *M. bauxbaumiana* and again this plant bears a very strong resemblance to *M. schiedeana*, in fact seems mid-way between *M. schiedeana* and *M. schieleana*. Whether these are actually new species or varieties of *M. schiedeana* I do not know, perhaps their flowers may be an indication as to their origin. A small *M. bullardiana* is well budded for flower and this seedling is only the size of the top of my finger.

It appears from reports that red spider seems to be on the increase in collections. This is a terrible scourge as it is often not until the damage has been done that the presence of the pests is noticed. The soft spined plants seem to be the worst affected. Among them are *Mammillaria bocasana*, *M. schelhasei*, *M. kunziana*, *M. baumii* and *M. erectrohamata*. In fact all those Mams., of a similar skin texture are liable to attack. The young plants of *Dolichothele* and *Rebutia* are also possible hosts. The deadly signs are a rust-like colour on the skin of the plant. This may completely cover the whole or lower part of the plant. The plant looks as if it has been watered with rusty water. The actual red spiders are not easily visible to the naked eye. If a magnifying glass is used a fine web will be seen to cover the skin and on it will be seen the tiny mites. The trouble is that the damage will have been done before steps can be taken against the pests. Malathion will kill them as will Sybol. The former is evil smelling but very effective. Some cones for burning in the greenhouse have been recommended against this pest but in practice it may be found that the smoke can discolour the inside of the greenhouse.

Rains may have cleaned the winter's grime from the windows of the greenhouse or frame but it is a good plan to give all glass, inside and out a thorough cleansing in the spring. I find I can clean the glass on the outside by using a plastic hose tied to one of the squeegee type sponge sticks. A small amount of water is allowed to run from the hose over the rubber sponge and if this is worked carefully down the glass all the dirt can be removed. Once the watering has been started in earnest make sure that plenty of fresh air is available to the plants at all times. The greenhouse need not be closed day or night during May, June, July, August and early September. Do not mind if the temperature drops down low at night and rises high by day. This is what the plants would have to endure in their native habitat.

The question of over-head watering is often asked. I consider that this is quite in order during the warmer months of the year. The plants will soon dry out after this treatment and after all in the plant's natural habitats there are usually very heavy dews. The trouble is that as soon as one has used the hose or over-head watering-can the weather turns dull and cold. I have found that I can fix a plastic hose with a fine rose spray to a tap on my rain water butt and as this is higher than my greenhouse I am able to water the whole of my plants with the rain water. This makes watering fairly easy except that if one plant does not need watering it is difficult to prevent any water getting to it. The best time to use this hose is when all pots have dried out, then all can get a good soaking. I like the idea of a thorough soaking now and again, much better than the frequent dribble which we might be inclined to give with a fine-spouted watering can. I like to make sure that the whole of the soil in a pot has been well damped and this is not possible with a small dribble which may not damp more than the top half inch.

It will not be too early to give special attention to those plants which you intend to exhibit during the show season. If a selection of these plants can be placed to one part of the greenhouse it will be easier to give them any special treatment they may require. It is not only at our own shows that one can exhibit, but there are many flower and vegetable shows throughout the country where a few classes for cacti are now provided. You will not only have the chance of winning a prize but you will have a golden opportunity of introducing these plants to other horticulturists and so enlarge the ranks of cactus growers. If your own particular horticultural society does not cater for at least one class of cacti, make yourself a nuisance at the general meetings until you get your way. I have noticed that even if people do not like cacti, at least they cannot just pass by a cactus in flower without a second look.

Make sure that you read and understand the schedule of a show so that you put your plants in their correct classes and remember that it is the showing of a plant which gives pleasure not necessarily winning a prize. You might think your plant is better than any at the show but you do not know for sure until you show it.

CULTIVATION OF SUCCULENTS

by Mrs. M. STILLWELL

With the coming of spring, all our old enthusiasm returns, and it is one mad rush, trying to get the repotting done, plus the eternal scrubbing of pots. Being a housewife one has the added advantage of being able to clean them indoors, without the partner's grudging permission. I use a deep plastic bowl, which I fill with very hot water, plus a strong detergent powder. With the aid of an old sharp knife, and a small scrubbing brush I soon get to work. The hot water kills any insect eggs that may be lurking in the crevices, I always rinse the pots afterwards in cold water. It is no use at all, just brushing out a pot, and thinking just because it looks clean, that all is well. So many diseases can linger in an unwashed pot. In the spring I also like to remove any pots that are standing on shelves, and wash over these shelves, and also the bottom of the pots, with a cloth wrung out in strong Dettol and warm water. If you prefer it, you can use Jeyes fluid instead. Do not forget to do under the shelves as well, and also under the staging. If the plants are standing on shingle it is a good idea, to wash this too, either by removing it, or using a watering can.

Remove any polythene sheeting as soon as possible, clean the glass, and give the plants plenty of light. I do not care for polythene in a greenhouse as a general rule, but I found it useful in my metal greenhouse this year where, during the very wet weather, I always get drips from two of the roof lights, in spite of every effort to correct it. I made two sort of slings, attached to wire coat hangers at each end. These I hook on to the cross bars below each light, being slack in the middle they caught all the drips, and I was able to tip out any water daily.

I like to get the *Stapeliads* repotted as soon as possible. They usually look rather sorry, after being kept dry through the winter. The larger growing *Stapelias* give a better show of flowers if broken up each year, concentrating on the new growth only. Be ruthless, and do not try to save any parts that look diseased, or attacked by black rot fungus. If you find some have rotted off just above the surface of the soil, they can always be cut off clean, and dusted with flowers of sulphur, or powdered charcoal, and left to dry, before potting up again. Some people prefer to leave the cutting just laying on the top of the pot until it shows signs of rooting. If when repotting you find the roots are attacked with root bug, they can be cleaned with an old shaving brush dipped in surgical spirit. It should be washed off afterwards in warm water. Half an inch of coarse gravel on top of the pots helps to keep the neck of the plant dry, and stops a hard surface forming on top of the pots. The somewhat choicer *Huernias*, and *Carallumas*, etc., should always be watered from the base where possible. *Stapelia* seeds germinate almost overnight. They should be planted on edge, in a mixture of sand and peat, or if preferred John Innes seed compost, with a good layer of peat in the bottom of the pan to hold the moisture. Remove seedlings from the propagator as soon as they have made their true bodies, or they will get very leggy and weak in growth. I pot mine into a mixture of sharp sand, sedge peat and loam, in equal parts, with the addition of a little bone meal or hoof and horn. One of the nicest large flowered *Stapelias* is *Stapelia nobilis*, it has very little smell.

The *Argyrodermas* can be repotted from April to May, when they are almost ready to water. They like a little limestone grit added to the compost. They grow quite slowly and only need repotting about every third year. They look most attractive when several are grouped together in a large pan, and surrounded by large white pebbles.

Keep your *Conophytums* dry until about July, when the new bodies should be just about ready to break through the outer papery skins. If you feel it necessary, they can be repotted just prior to the commencement of growth, but *Conophytums* seem to thrive for a number of years without disturbance, being very slow growing, and often shallow rooting. July is the time to take cuttings of these. All the hard woody growth must be cut back, to reveal the fresh green active growth at the base of the cutting. Place them in a very coarse sandy rooting medium, and water carefully. One of the nicest to give a lovely splash of colour is *Conophytum pearsonii*. Flowers very freely, usually from every head, the rich magenta flowers completely covering the body of the plant. In most cases the bilobe varieties are the ones to show signs of active growth first. These are by far the easiest to grow, and will readily increase, as many as two or even three new bodies will often be formed annually inside each head. They are also some of the first to flower. One of the first is *Conophytum notabile*, with a rich orange flower. Mine is usually in full flower at the beginning of July.

Last autumn I repotted a number of things into plastic pots, mainly for experimental purposes. These included, some of the choicer *Haworthias*, such as *H. truncata*, *H. maughanii*, *H. bolusii*, etc., and some of the dwarf *Crassulas* They have come through the winter very well, but some are looking just a little too green and open for my liking. *H. truncata* and *H. maughanii* seem to do well in a plastic pot, but on the whole things tend to romp away, and grow away from type, if they receive too much moisture. There is no doubt about it, they are the pot of the future, and

do retain the water far longer than a clay pot. The danger lies in over-watering, as if the soil gets really water-logged the roots will not be able to breathe properly and the plant will die. *Epiphytes* and all moisture loving plants do well in them, but I am still a little wary of the mimicry plants. Plastic pots have the advantage of being far easier to clean, and root bug is not so likely to thrive. They are much lighter to handle, and in weight, a basket full of plants should be a lot lighter to transport to a show. It is possible to buy square plastic pots, these would be great space savers, both on the staging and in a propagator. Growers are finding the new plastic seed boxes are a great boon. They last for years without any danger of rotting, and are no trouble to clean and store for the following year. The average price seems about two shillings. They have plenty of drainage holes in the base, and there is no fear of the bottom falling out. They make excellent pricking out boxes, and two or three can be stood in the sink overnight with a few inches of water, to soak up.

If you are thinking of a new greenhouse this year, concentrate on the best. Take plenty of time to make up your mind. Selection of the site is also of great importance. Make sure that the sun reaches that spot in the winter, as well as the summer. This is one of the most important factors to take note of. I have a branch member who had a brand new greenhouse and was filled with enthusiasm in the summer, but when the winter came she found that it got hardly any sun, at the right time of the day. A lean-to facing south is ideal, but one facing north, is no good for our plants. I always prefer a house running east to west, and well away from the shadow caused by the house, or neighbouring trees. Take your time, and start with a good concrete foundation, you will find this a benefit in the winter when the damp rises and too much condensation results. Have a look at both ends, and see if at some future date, you have left enough room for an extension, it is too late to alter its position once you have got a good solid foundation down. Any plants from an old existing greenhouse, will come to very little harm, if stood outside in the garden during the main part of the summer, you can easily erect a polythene roof over some of the choicer ones, in case of a heavy downpour, but the majority will appreciate it. You can then systematically go through your collection repotting everything, getting rid of all unhealthy plants, renewing labels, and having a completely new start, with a greenhouse pest free and we hope trouble free for some time to come. How I wish I could do it. Make sure that the model you select, has plenty of ventilation, particularly in the roof, where the hot air rises, and is looking for escape. Plants do not like to be in a direct draught, therefore windows should be staggered, and not directly opposite to one another. Very large apertures should be covered with wire netting to prevent birds entering. It is often far safer to let a bird find it's own way out, as a bird in a panic can often do far more damage.

Try some of the commoner succulents in an outdoor garden this year. They give a lot of pleasure to passers by, and help to stimulate the interest. First make sure to take one or two cuttings of each, to retain in the greenhouse, for the coming year, as often the plants grow so large outdoors that there is no space to return them to the greenhouse for the winter, and in the case of the shrubby mesembs., they often resent root disturbance at the end of the season. Save all your old potting compost for the outside bed, plus a generous amount of sand, and a dressing of bonemeal. It can take the form of a rockery made to look as artistic as possible with natural stone. Be careful when planting, and place the more rampant growers, where they will not quickly cover up the smaller ones. The whole bed can be edged with the common *Mesemb. criniflorum*, or *Portulaca grandiflora*. These will give a continuous show of flowers all through the summer, providing you have picked a good sunny spot.

With this issue you will receive the Schedules for our Summer and Spring Shows. This is to avoid the disappointment which some members experienced when, last year, the schedule for the September Show went out with the August issue. Please take great care of it. Please, too, do your best to make at least one entry.

Your Editor is frequently asked for advice by Branch Secretaries on Fund Raising. Whilst he has some knowledge of this from his own experiences as a Branch Secretary he would greatly appreciate hearing from the Branch Secretaries on the methods which they have found successful and also those which have not proved so. It is intended to pass the information to all Branch Secretaries.

With reference to 'Handbook on Succulent Plants' published by Brooklyn Botanic Garden previously mentioned, the cost is one dollar post free, and orders will be accepted by the Editor.

MAMMILLARIAS I HAVE GROWN *(continued)*

by A. BOARDER

Continuing my list of *Mammillarias* I have grown, I come to the letter 'Q'. I have only one plant of this initial:—

M. quevedoi, a handsome type with plenty of white wool between the spines but according to some authorities this plant is synonymous with *M. bravoae*.

M. rekoi, a tall type which looks attractive among the shorter plants.

M. rettigiana, a plant with strong hooks and one of the more difficult to grow types. My first plant was from seed obtained from Winter in 1933.

M. ritteriana, quite different from the above named. This plant is somewhat like a long, black spined *M. elegans*, and with me appears to make a few off-sets well up the plant. This also came from Winter's seed in 1933.

M. rosea, is rather similar to a *M. rhodantha*, but has not such a shiny spine, it also has a bluish appearance. I have had plants of this kind for many years, and they have kept simple.

M. rosensis, this is a rather new one to me and so far it does not seem to have any special characteristics worth mentioning.

M. rosealba, is also one I have had for many years but I do not know if it is a distinct species.

M. rossiana, is a new one to me and the seed was obtained in 1962, from Mr. Shurly. It is not yet large enough for me to describe fully.

M. roseocentra, is a plant I appear to have lost through the years. My first plant was obtained from Cavill, according to my records but I am unable to remember much about it. I have not come across it in recent years.

M. ruestii, I have had for several years. My first plants of this species were named by Mr. Shurly, but as they had black spines they did not answer to the description. I later raised many from seed and these have a more golden spine, but are rather slow growing.

M. rubrispina, was raised from seed in 1933, from Winter, but I consider that this is a form of *M. rhodantha*.

M. rubida, is a very distinct species with a reddish hue over the whole plant. I raised my first plant from seed in 1949, and have flowered and seeded the plant since then on more than one occasion.

M. rosensis v. *nerispina*, is a new one to me and not yet large enough to enable me to give a good description.

M. rutila, was raised from seed in 1962, and I believe the seed came from the Mamillaria Society. I do not know much about this plant as it is quite new to me.

M. rekoi v. *odieriana*, is another new one to me as I only received the seed in 1963. It appears to be similar to a plant I used to have as *M. odiera*.

M. rhodantha, was first raised from seed by me in 1927, and since then I must have raised thousands of these plants. This is a problem plant if every there was one as it is possible to get plants of this species with spines varying in colour, density and length, to cover an extremely wide range. The striking characteristic about all *M. rhodanthas* is that the central spines are very shiny and if seen against the sunlight give off a strong shine. All varieties appear to keep simple or single until they are fairly old plants. They then become either double headed, or more, or make an off-set or two. I will give some of the varietal names of *M. rhodantha* I have had over the years, but I am not claiming that there is any valid reason for such naming. As a matter of fact I consider that it is absolutely impossible for anyone to name many of these plants as the difference from one plant to another is so slight that it is insufficient to be a guide of any value. Some plants have almost white spines, then others have pale yellow, then yellowish-brown, brown, dark-brown, reddish-brown, red, brownish-black, blue and black. When it is realised that plants can be found which vary slightly through all these shades it can be imagined how difficult it would be to pin down any particular variety. We then have the fact that some have long spines whilst others have shorter ones, some are more curved than others as well. However, I will give the names I have had plants from seed under, and you can take your choice as to the correct naming.

M. rhodantha v. *crassispinus*, I had from Hollis in 1929, it has distinct yellowish-brown spines.

M, rhodantha v. *drogeana*, I had from seed from Endean in 1929, and has very dark-brown spines.

M. rhodantha v. *ferra-rubra*, was from Southgate in 1937. This is said by some people to be a distinct species, and I would not disagree with this statement. It rather resembles the reddish type.

M. rhodantha v. *pfiefferi*, was from Hollis in 1929, and is somewhat like the plant I have as v. *crassispina*.

M. rhodantha v. *fulvispina*, was from Endean's seed in 1929. This is a handsome plant with brown to red spines.

M. rhodantha v. *fuscata*, this is now given a specific name, but is still very like a v. *rhodantha* to me.

M. rhodantha v. *pfersdorffii*, was raised from seed by me in 1929, and came from Endean. This variety is one of the very few ones which practically always comes true from seed. In about 1932, I distributed seeds of this variety

to members of the society and subsequent shows had a class for plants raised from this seed. All the plants were similar in type and colour and hundreds I have raised since then have been the same. The plants are distinguishable by having very bright, pale yellow spines. Yet this variety is apparently unknown to most authorities.

M. rhodantha v. *pyrimidalis*, again from Endean's seed in 1929. A type something like the v. *fulvispina*, but has some differences.

M. rhodantha v. *rubra*, a fine dark-red spined plant from de Laet's seed in 1931.

M. rhodantha v. *sulphurea*, a sulphur coloured spine, which is quite attractive, from seed in 1929, from Hollis.

M. rhodantha v. *sanguina*, another of the red spines types probably a v. *rubra*.

M. rhodantha v. *rufispina*, is a plant I have had many years, red spines but not distinct enough as a variety, appears to be be a v. *rubra* type.

M. rhodantha v. *rubens*, another of the same approximate appearance.

M. rhodantha v. *flavispina*, have also had this as *M. flavispina*, but the former is distinctly rhodantha-like whilst the latter is like a long spined *M. spinosissima*.

M. rhodantha v. *rubrispina*, another of the type v. *rubra*, a name probably given by someone because of its red spines.

M. rhodantha v. *blue spines*, a plant I grew from seed sent to me by a cactus friend in California. A very handsome type.

M. rhodantha v. *stenocephala*, is a plant I once bought from a florist's shop in Watford, in 1931, and it could have been one of several varieties.

The Society wishes to build up a collection of 36 mm slides which could be made available to Branches for showing to their members. Would any members who have duplicates or spares kindly send them to the Honorary Treasurer who will mount and collate them. If the names are known will you please let Mr. Young know.

The idea behind this amenity is to provide for competitions as well as instruction at Branch meetings.

LIST RECEIVED: Seed list covering over a hundred genera of Cacti and Other Succulents. Ronald Coward, 1 Marsden Hall Road, Nelson, Lancashire.

NOTICE OF PUBLICATION: 'Introduction to Greenhouse Gardening' by R. H. Menage, published by Phoenix House at 21s. in May, 1964.

Press release informs us that the book ($8\frac{1}{4}''$ x $5\frac{1}{8}''$) has 122 photographs and 43 line drawings in text.

JOURNAL BINDER: A self-binder, capable of holding four years' Journals, finished in green cloth with gilt lettering on the spine, is available, price 12s., post free to members.

LABELS: Triangular type, one which can be read without turning the head and stays in place when watering. White ivorine, 4/- per 100, post free.

BLAZER BADGES: Obtainable on black or navy ground, 10s.

LAPEL BROOCH BADGES: New price 3s. 9d., post free.

All the above available from E. W. Young, 35 Castle Drive, Ilford, Essex.

The Lakeland Rose Show, to be held at Grange-over-Sands on 3rd and 4th July, includes for Cacti in its Schedule. Show Secretary: Mr. J. M. Robinson, 4, Dalton Drive, Sedvergh Road, Kendal. (Tel. Kendal 1804).

LITHOPS NOTES

by A. W. HEATHCOTE

Many of our Members may have noticed references by speakers at our monthly meetings referring to revised groupings of names of *Lithops* to which they had grown familiar. One recent speaker mentioned the names of Dr. De Boer (whose name, at least, is familiar to most) and Dr. Boom.

In 1961 'Succulenta' published a series of Articles (commencing at Issue No. 4 for that year) with, we are grateful to say, a succinct comment in English following the reference to each species or variety referred to.

The subject matter and the findings in the articles by Dr. De Boer and Dr. Boom came as no great surprise to those who had been looking closely at their *Lithops*. Many of them had felt the affinity, for example, between *L. pseudotruncatella* and *L. alpina* and *L. edithae*. They also appreciated that variation in some of the species was considerable and that location played a considerable part. Plotting the locations of *L. terricolor* and *L. peersii* on a large scale map a year or so ago raised considerable support in my mind for Prof. Nel's placing them together under *L. terricolor*. Prof. Nel also included *L. localis*. You will note from the summary which follows that Dr. De Boer and Dr. Boom have drawn these three into *L. localis*.

These articles did not just materialise from suppositions and thin air. They were the culmination of many years of very intense study on a vast number of plants raised from seed received direct from the natural habitats of the plants. Only by so doing could the variation within large progenies be truly studied and only then when coupled with the great knowledge and experience which these two gentlemen possessed sustained by the enthusiasm and devotion of true scientists.

When first I was attracted to this genus I read that *L. fulleri* could always be identified by the *eight* brown dashes round the edge of each lobe, yet at a meeting two years ago I showed plants of this species raised from seed at the same time and those present were sure only of six as being *L. fulleri* (two of which were very similar), the other two being unidentifiable. The number of brown dashes varied from six to fifteen. Fortunately really reliable information is now taking the place of such sloppy observation as prompted the writing of the comment which I so well remember. At this meeting we were considering only eight plants of a species well know nowadays for its variability yet Mr. Gordon Rowley has reported that in 1957, in preparation for the articles, Dr. De Boer had 2,500 plants of *L. optica forma rubra* alone under observation. The average *Lithops* enthusiast could be pardoned for thinking that there was little need for such detailed examination here. This is the difference between the average person and the scientist and a warning neither to generalise nor to be too quick in announcing your thoughts, nor to be too wise — many of us can remember the 'know-all' who can so readily identify the immature chestnut shell half immersed in a pot of soil and the pineapple top, not to mention the convolvulus flower neatly fitted over an *Echinopsis* spine.

Most of us are happy merely to build up collections of *Lithops* and if one comes to us with an unfamiliar name or one which does not appear, for example, in Jacobsen we are apt to retain that name on subsequent labels. Whether this is because we hope that it may be a new species, yet another species to add to the collection, or whether we are too lazy to bother but happy in the acquisition I do not know, but it is a common event. I imagine that quite a few members will have a plant under the name *L. blomii* and find it both attractive and interesting. I have only one and it is a rich terracotta colour with fine markings and a definite sheen. Viewed from some angles it has the appearance of *L. lesliei* (which view is supported by Dr. Geyer) but its surface is more rugose. In the light of Dr. De Boer's approach to *L. optica forma rubra* what ground have I for making assumptions? It remains as *L. blomii*. On the question of identification I have a problem with *L. summitata*, a species now linked with others to *L. karasmontana*. Of the two in my collection one is ochre coloured with brown impressed marking and bearing some resemblance to *L. karasmontana*. The other is basically ochre coloured also but this colouration is almost obscured by a suffusion of red, the markings are impressed red but it has a very distinct greyish margin and looks totally unlike any other plant which I have. I shall be interested to hear comments on this plant. Dr. Geyer supports the transference with the information that it is indistinguishable from *L. karasmontana* but is found on the tops of fairly high hills whereas *L. karasmontana* is found nearby on low quartz kopjes. The other species transferred with *L. summitata* are *L. mickbergensis* which was included by Prof. Nel although Dr. Geyer points out that it can be distinguished by its narrow lines, *L. lateritia*, which has been expressed to be a form of *L. mickbergensis* growing on a hilltop while the latter grows on the plain below, *L. jacobseniana*, known to some as *L. ursulae* (*nomen nudum*), and *L. opalina* which was also included by Prof. Nel. Here again Dr. Geyer has expressed the opinion that the latter can be distinguished by its shadowy-bluish, in some cases fine brown, lines. My solitary specimen certainly has the shadowy bluish markings.

The list which follows was built up from the details published in 'Succulenta', the new names being given first and the old names, when applicable to the right of the new name. These changes have meant a considerable amount

of adjustment to the list of *Lithops* names on which I have been working for some time and they will be incorporated nto the list when it is published, I hope, in the very near future.

In conclusion and after echoing our tribute to Dr. De Boer and Dr. Boom we must place on record the service rendered by 'Succulenta' both in publishing these valuable findings and for providing the English annotations.

CHANGES IN THE GENUS LITHOPS — PER DR. DE BOER AND DR. BOOM

(Published in 'Succulenta' from April, 1961)

New name	Old name, where applicable
L. bella N.E.Br.	
L. bella N.E.Br. var. *bella*	
L. bella N.E.Br. var. *eberlanzii* (Dint. & Schw.) De Boer & Boom	(= L. *eberlanzii* Dint. & Schw.)
L. bella N.E.Br. var. *lericheana* (Dint. & Schw.) De Boer & Boom	(= *L. lericheana* (Dint & Schw.) Dint & Schw.)
L. divergens L.Bol.	
L. divergens L.Bol. var. *divergens*	
L. divergens var. *amethystina* De Boer	
L. erniana Loesch & Tisch	
L. herrei L.Bol.	
L. herrei L.Bol. var. *herrei*	
L. herrei L. Bol. var. *geyeri* (Nel) De Boer & Boom	(=*L. geyeri* Nel)
L. julii (Dint. & Schw.) N.E.Br.	
L. julii var. *julii*	(*L. julii* var. *pallida*) (*L. lactea*)
L julii var. *recticulata* Tisch. ex De Boer	L. *typica* Tisch. ex De Boer
L. karasmontana (Dint. & Schw.) N.E.Br.	
L. karasmontana (Dint. & Schw.) var. *karasmontana*	
L. karasmontana (Dint. & Schw.) var. *mickbergensis* (Dint.) De Boer & Boom	(=*L. mickbergensis Dint.*) (*L. lateritia Dint.*) (*L. jacobseniana* Schw.)
L. karasmontana (Dint. & Schw.) var. *opalina* (Dint.) De Boer & Boom	(=*L. opalina* Dint.)
L. karasmontana (Dint. & Schw.) var. *summitata* (Dint.) De Boer & Boom	(= *L. summitata* Dint.)
L. lesliei (N.E.Br.) N.E.Br.	
L. lesliei (N.E.Br.) var. *lesliei*	
L. lesliei (N.E.Br.) var. *venteri* (Nel) De Boer & Boom	(= *L. venteri* Nel)
L. lesliei (N.E.Br.) var. *minor* De Boer	
L. localis (N.E.Br.) Schw.	
L. localis (N.E.Br.) var. *localis*	
L. localis (N.E.Br.) var *peersii* (L.Bol.) De Boer & Boom	(= *L. peersii* L.Bol.)
L. localis (N.E.Br.) var. *terricolor* (N.E.Br.) De Boer & Boom	(= *L. terricolor* N.E.Br.)
L. pseudotruncatella (Berger) N.E.Br.	
L. pseudotruncatella (Berger) var. *pseudotruncatella*	
L. pseudotruncatella (Berger) var. *alpina* (Dint.) Jacobs	(= *L. alpina* Dint.)
L. pseudotruncatella (Berger) var. *pulmununcula* (Dint. & Jac.) Dint. ex Jac.	
L. pseudotruncatella (Berger) var. *edithae* (N.R.Br.) De Boer & Boom	(= *L. edithae* N.E.Br.)
L. pseudotruncatella (Berger) var. *elisabethae* (Dint.) De Boer & Boom	(= *L. elisabethae* Dint.)
L. pseudotruncatella (Berger) var. *mundtii* (Tisch.) Tisch. & Jac.	(*L. mundii* Tisch.) (*L. pseudotruncatella* f. *mundtii*) (*L. pseudotruncatella* ssp. *mundtii*)
L. pseudotruncatella (Berger) var. *dendritica* (Nel) De Boer & Boom	(= *L. dendritica Nel* *L. farinosa* Dint.)
L. pseudotruncatella (Berger) var. *volkii* (Schw.)	(*L. volkii* Schw.)
L. ruschiorum (Dint. & Schw.) N.E.Br.	
L. ruschiorum (Dint. & Schw.) var. *ruschiorum*	(*L. lineata*)
L. ruschiorum (Dint. & Schw.) var. *nelii* (Schw.) De Boer & Boom	(*L. nelii* Schw.) (*L. ruschiorum* ssp. *nelii* Schw.) (*L. ruschiorum* ssp. *stiepelmannii*)

New Name	Old name, where applicable
L. schwantesii Dint.	
L. schwantesii Dint. var. *schwantesii*	(*L. kuibisensis*)
L. schwantesii Dint. var. *kunjasensis* (Dint.) De Boer & Boom	(= *L. kunjasensis* Dint.)
L. schwantesii Dint. var. *rugosa* (Dint.) De Boer & Boom	(*L. rugosa* Dint.)
L. schwantesii Dint. var. *triebneri* (L.Bol.) De Boer & Boom	(= *L. triebneri* L.Bol.) (*L. gulielmi* L.Bol.)
L. schwantesii Dint. var. *urikosensis* (Dint.) De Boer & Boom	(= *L. urikosensis* Dint. *L. gulielmi* Nel)
L. verruculosa Nel.	
L. verruculosa Nel var. *verruculosa*	
L. verruculosa Nel. var. *inae* (Nel) De Boer & Boom	(= *L. inae Nel*)

THE VISIT OF Dr. R. T. CRAIG

Just over nine years ago we published a report of a meeting in London at which Doctor R. T. Craig addressed the members present. Since that time many new members have joined the Society and we reprint most of the original article to give an insight into the trials and tribulations of those whose efforts bring plants into our collections.

Mr. Shurly said he had known and had been corresponding with Doctor R. T. Craig for some thirty years, but this was the first opportunity they had had of meeting in the flesh. The name of Dr. Craig was, in this country, linked mainly with the 'Mammillaria Handbook', but in the United States he was known for his extensive experience and wide knowledge, especially in field work, as well as for his valuable services to the American Society.

Dr. Craig made a short reply in which he thanked Mr. Shurly for his remarks and took the opportunity of expressing his tribute to the vital assistance which Mr. Shurly had given him in preparing the material for the 'Mammillaria Handbook', particularly the historical data, which had meant untold hours of research on information not available in the United States. Dr. Craig said that he had seen quite a few collections in this country and voiced his compliments on the standard of cultivation, which was both good and 'natural' and contrary to what he had been led to expect. Indeed, some of the plants which he had seen here were better specimens than he had seen in California. He concluded his preliminary remarks by conveying the greetings of the American Society to the Cactus and Succulent Society of Great Britain.

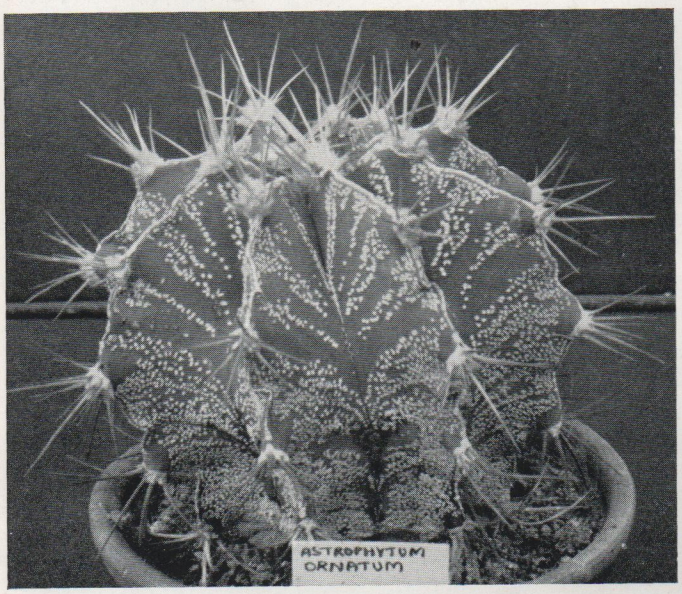
He said that he had brought some pictures with him which he had hoped to show to a few friends in Mr. Shurly's home, but he had not imagined showing them to an audience of the size which he faced this evening. Most of the photographs were taken in the field and would be of particular interest as they showed plants growing in their natural habitats and in natural growth, and he felt that his audience would be interested to compare them with the plants as they were grown in this country.

He proposed to divide his talk into three parts.

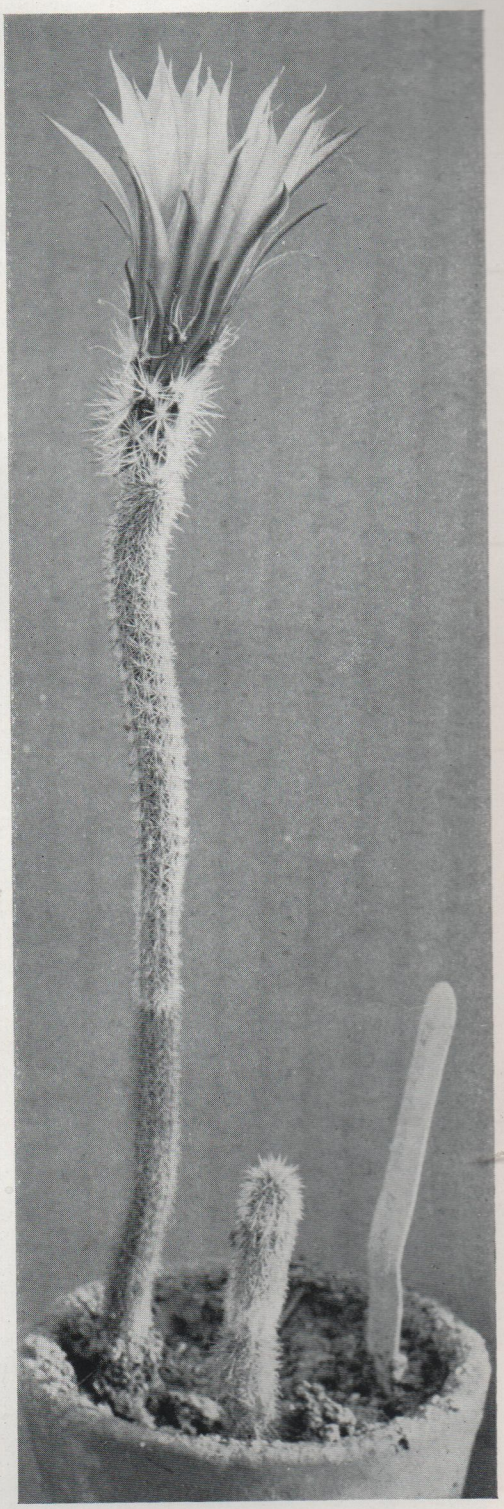
The first consisted of a series of pictures taken by Mr. Harry Johnson on a trip into the high mountains of the Andes in South America. The slides formed a priceless collection of photographic gems and included some majestic sweeps of mountain scenery. Some were taken at an altitude of over 14,000 feet, and, Dr. Craig said, were the result of considerable physical effort as Mr. Johnson experienced great difficulty in the rarefied atmosphere. This was an area in which Backeberg had worked. Some parts of the Andes have had no rainfall for 400 years. Despite this, however, sufficient moisture is provided by the moisture-laden atmosphere in the form of fogs, to support vegetation.

The second part consisted of a talk titled 'What is a Species ?' Here Dr. Craig engrossed his hearers with a description of some of the difficulties, pleasures, disappointments, hardships and hard work involved in field work. This must have caused many to leave the meeting with a totally different idea of plant collecting under natural conditions. He mentioned, for instance, the difficulty of variations in species. *Lemaireocereus thurberi* being found branching from the base and with large stems, but 250 miles away it would be branching higher up with smaller stems. *Mammillaria dioica* would, similarly, show definite variation in the colour of the spines. The actual situation of the plant frequently affected their appearance; thorny bushes by providing protection also promoted variation. One instance, quoted by Dr. Craig, was of a *Mammillaria*, which was shaped like a saxophone and two feet

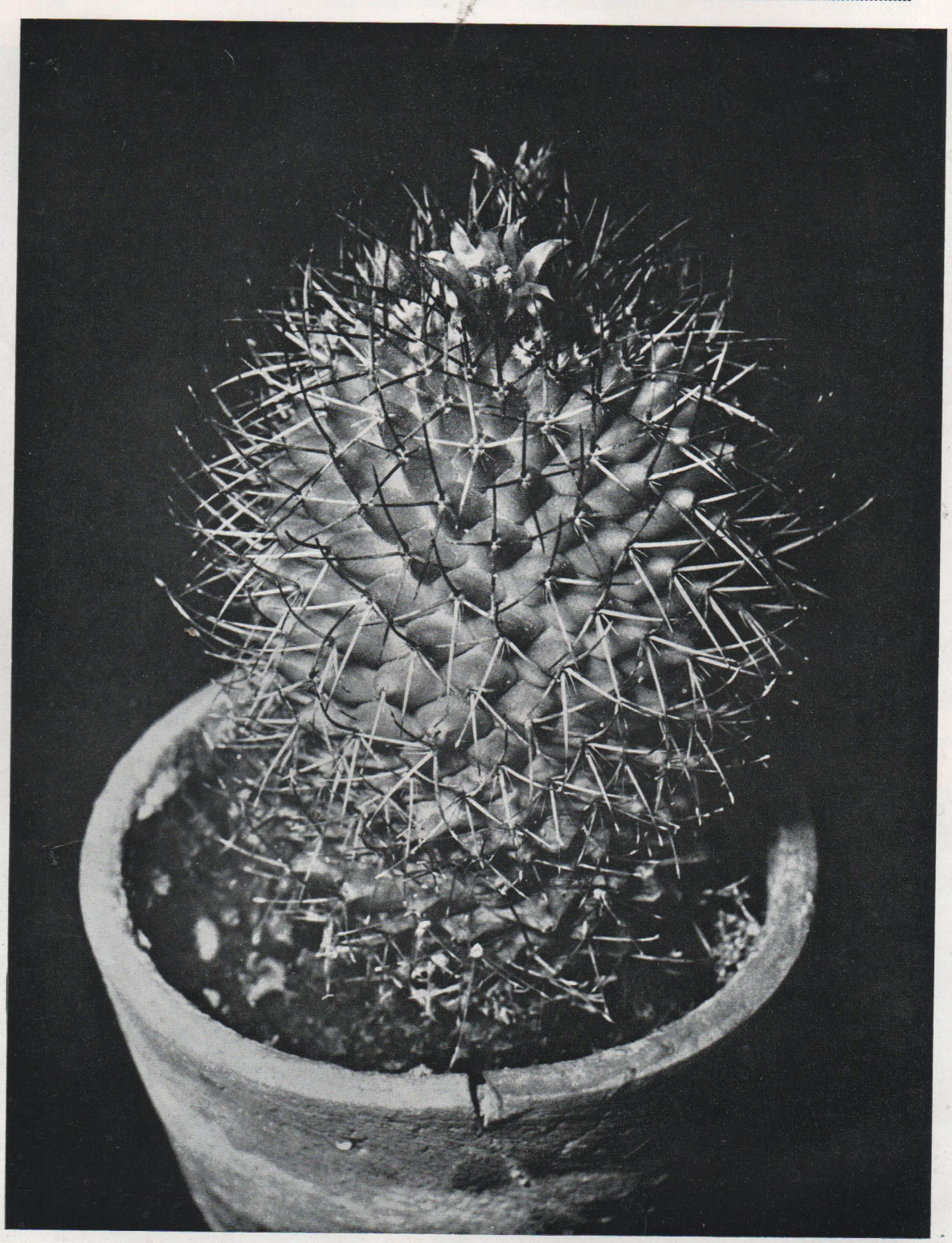
Notocactus scopa G. A. Burton



Astrophytum ornatum R. H. I. Read



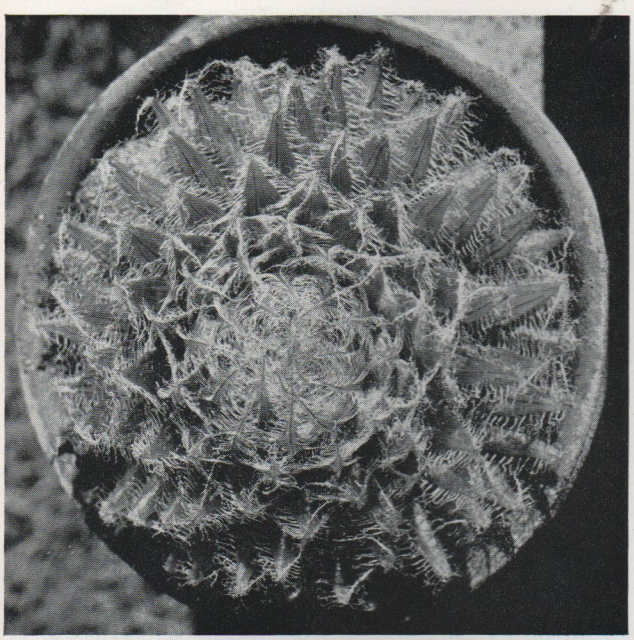
Wilcoxia postelgerii G. A. Burton



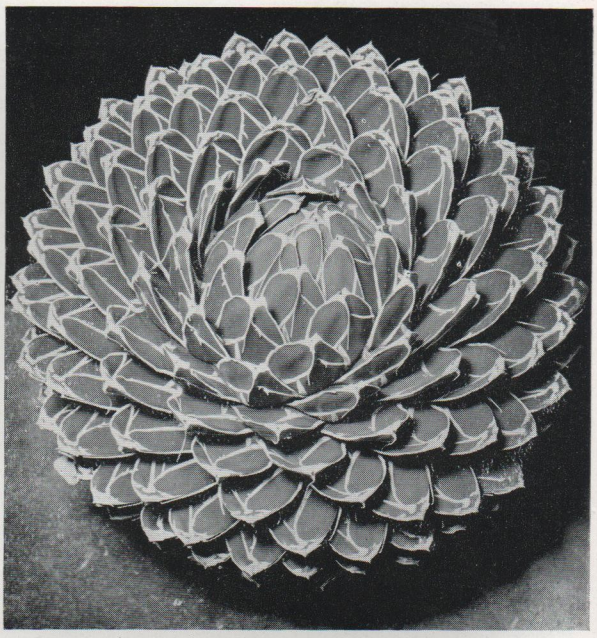
Mammillaria rhodantha

B. Eady

Oscularia deltoides Miss M. J. Martin



Haworthia bolusii Dr. Vic. R. E. Murray



Agave victoriae-reginae Dr. Vic. R. E. Murray

Echeveria derenbergii Miss M. J. Martin

long, growing against a cliff. Another was found growing in salt water, but its roots probably ran back to fresh water. He said that it was his experence that some plants like, and even need, a little salt. A *Mammillaria johnstonii* had been found growing in sea shells. One of the biggest difficulties and heartaches was deciding which specimens there was room for on the return journey. Many such trips are carried out with horse or burro transport and each animal can only carry two panniers. In such cases a large specimen can be an embarrassment. On occasions, the native assistance posed its own problems, and sign language was not always infallible. Dr Craig quoted the example of when, after having found a particularly important plant and after giving instructions by detailed gesticulations of how he wanted the plant trenched and lifted cleanly, roots and all, the native promptly severed the plant in two with one blow of his machete. There was the difficulty of the plant that was just out of reach, and how frequently that occurred. One journey involved travelling in a train up a gorge so narrow that the sides could almost be touched from the train. Almost, but not quite, for many plants which he would have liked to have collected were there, just out of reach. He mentioned that the train speed was not much above a canter and there was a sporting chance that it might be caught up again, but the risk of losing the train was too great. In any event, the next one was not due until the following day. On the return journey, down the gorge, the speed was of such an order that even Dr. Craig's steady camera could not forbear to wobble. Hardships were not absent either; he told of travelling with a train of fifteen animals when the only available spring turned out to be no more than a muddy patch. Digging produced about a pint of water. Only after the animals had been watered were the humans allowed to drink. You can imagine the condition of the waterhole after fifteen animals had milled around in it. The animals came first for it is not much good being alive with a dead or ailing horse. Keep the horse going and you have a good chance. Another trial, which occasioned considerable surprise, was Dr. Craig's reference to a tribe of cannibals in Mexico some 200 miles from the U.S. border. Such a bad name have they that the local Mexican police shoot on sight. After such labours, at the end of the day comes sorting, photographing, labelling, note-making and general organisation of the results. Dr. Craig's receipe for 'What is a Species ?' 'You decide and let the other guys argue'.

The third part consisted of a further set of equally magnificent photographs by Dr. Craig himself of a trip through Cactusland, embracing plants in their natural habitats and in cultivation, and many of those awe-inspiring views of tortured rock formations and massive canyons, the colour of sunlight and with a clarity which added miles to the depth of each picture. Words alone are completely inadequate to describe the excellence of these slides and of those in the first part of the talk, or of the pleasure they occasioned. The beholder was left with a sense of aesthetic indigestion, so thoroughly was he soaked in beauty.

Dr. Craig said that rain was not the prerogative of England. In the Sonora desert the individual drops of rain, in one of the periodic rainstorms, might easily fill a tea cup. A few paces were sufficient to be saturated. So fierce are some of these storms that river beds frequently rise several feet in the matter of seconds, sweeping away anything which lies in the way. Two examples of the power of these flash floods were of three oil tankers and trailers, no trace of which could be found, and of a freight locomotive being so buried in sand and silt that it was only found with the aid of a mine detector. Maybe we have something to be thankful for.

ACCLIMATISATION GARDEN "PINYA DE ROSA"

Blanes (Costa Brava) Prov. Gerona, Catalonia, Spain

By JUAN PANELLA BONASTRE, botanist at the Barcelona Gardens

(Reprinted from our 25th Aniversary Number, October, 1956)

A meeting of a few friends, lovers of the vegetable kingdom and specialising in the study of succulent plants, held at Zurich (Switzerland) in September, 1950, afforded a personal touch to found the I.O.S. (International Organisation for the study of Succulent Plants). Further, they duly arrived at certain agreements regarding the task to be undertaken concerning this significant group of plants.

One of the problems to be resolved was to arrange certain groups of succulent plants in Europe, in the open air, so that they might be able to retain as much of their natural characteristics as possible, which is not possible with plants cultivated in greenhouses. To succeed in the study of these characteristics it became necessary to have the use of a garden in a place with a mild climate, on a ground large enough to embrace several hundreds of species, chiefly large ones, belonging to this interesting vegetable group.

Thanks to the magnanimous contribution of Mr. Fernando Riviére de Caralt, member of the I.O.S., owner of grounds on the shores of the Mediterranean, at the touristically well known Costa Brava, Catalonia, Spain, this lack, which was the preoccupancy of all specialised lovers of these plants, has been satisfied; the Acclimatisation

Garden, called 'Pinya de Rosa', is maturing and developing its activity. The garden is still young, but already well advanced throughout the field of activities regarding succulent plants.

'Pinya de Rosa' lies about 70 km. north of Barcelona at Blanes, Costa Brava, Catalonia, near the first cliffs, between sea and mountains. Its position is the best for the realisation of our project. Plantations are in the open air, protected against north winds, facing south, and meet with the demanded requirements, so that their growth emulates that of their native countries. Winters are normally near 0°C., but a few days of January and/or February they reach sometimes to 1° and/or 2° below 0°C. Notwithstanding, it has been noticed that most plants are still growing perfectly. But last winter was extraordinarily abnormal and, at 'Pinya de Rosa', the thermometer recorded 8.5 below 0°C. during three to four days. Though some plants have not withstood this temperature, many of them are still standing and beginning new vegetation. The ground now arranged for garden has a surface of about eight hectares (nearly twelve acres), and is still able to be considerably enlarged in proportion to plantation needs.

Plants growing at 'Pinya de Rosa' embrace about 4,000 distinct species; a great part of them belong to groups of succulent plants. Although there are many kinds included within this group, the garden is specially adaptable for those succulent plants which are not able to be grown in a greenhouse. Special gardens have been built for this purpose, so that systematically planted *Opuntias*, *Agaves*, *Aloes* and *Mesembrianthemums* may be actually observed growing. All these grow, flourish and fruit perfectly, showing it was fortunate to be able to house them at such a place. After these collections have been completed, the establishing of other types of succulent plants and their acclimatisation will be undertaken for study purposes.

Material that exists there now has been received, largely, from friends and amateurs in several countries who specialise in the study of succulent plants. We trust to their help to complete and develop our projects.

At present, the systematic collections contain the following species; about 300 *Opuntias*, 80 *Agaves*, 90 *Aloes* and 500 *Mesembrianthemums*. With a view to increasing their number, we are now in touch with people in the native countries of these plants. We are constantly receiving seeds and small plants, which are being planted in suitable places, at the right time, according to their growth.

The management of 'Pinya de Rosa' would be very grateful to all, whether professionals or amateurs, for species of *Opuntias*, *Agaves*, *Aloes* and *Mesembrianthemums*. All species are worthy of interest, as they will be examined and compared, so as to enlarge the collection, which, in the end, should be of the utmost assistance, internationally, to the study of succulent plants.

THE EDITOR

Since the last issue of this Journal I have been appointed to the task of acting as your Editor.

I take, with pleasure, this earliest of opportunities of expressing my thanks to Mr. Stillwell and Mr. Boarder for their articles which are so regularly forthcoming and to Miss Martin for her equally regular supply of superlative photographs. The regularity of such contributions is a firm foundation for any editor to build his publication. In addition connections are being built up abroad but these are inevitably slow growing but I have already received valuable contributions from Dr. Geyer of South Africa and Mr. Leach of Southern Rhodesia. In addition our botanist members, Mr. Gordon Rowley, Mr. Leonard Newton and Mr. David Hunt are always willing to assist and not merely to offer assistance.

I have already been asked (or told) to provide this, or that, type of article.

By definition an editor is 'one who edits' and 'to edit' 'to supervise the publication of (a newspaper, etc.)'. He is limited by the contributions he receives and he cannot be expected to fill the blanks from his own typewriter. At least, not all the time or he might be accused of using the second definition (according to my dictionary) of 'to edit' which is 'to compile, garble or cook up materials into literary shape'. The same dictionary gives for 'garble' 'to mutilate, corrupt or falsify'the word being derived from the Arabic 'a seive'.

The policy of the Society is, in brief, to provide a Journal which will link all types of readers and provide a reputable source for the publication of new material. It follows, therefore, that with the worldwide distribution of our Journal that items of a purely domestic character must be precluded.

Within the limits of this requirement is a vast field and I shall be happy to receive contributions which will be of interest to our members or any large part of them. With Volume 27 it is intended to include a special section for beginners. For this idea and the forthcoming material our thanks are due to Mr. W. I. Acton of Gosforth, Newcastle-upon-Tyne.

Another suggestion which has been acted upon in this issue is that certain articles should be reprinted. It is

felt that with the interest in Spain of recent years this article will interest new members as the other reprint will give an insight into the work of the collectors.

With regard to photographs the criterion is that the picture should be of interest and its definition should be of good quality. Colour photographs of good composition are equally suitable for reproduction.

All contributions should be addressed to me at the address shown on the Society page (following page 26) and should state whether the article or photograph should be returned.

EDITORAL

With the Annual General Meeting held on 18 February a name was removed from the list of Members of the Council of the Society. Mr. A. J. Edwards, a member retiring by rotation, did not offer himself for re-election.

Mr. Edwards had served the Society for a very long time as Chairman and as a member of the Council. His state of health had prevented him from giving the time to the Society which his inclination demanded for some time past and has finally forced him not to seek re-election.

The Society is deeply indebted to Mr. Edwards for his period of valuable service and places its sincere appreciation on record. Although his experience and knowledge is still available to the Society his presence at the Council's deliberations will be much missed.

To aid our readers and the various officers of the Society we produce a Directory on this page which answers many of the questions as to who is the best person to write to with your queries.

We are happy to record the wedding at Beddington Parish Church on 4 April of Mr. W. S. Maddams and Miss Betty Souter. Both are members of our North Surrey Branch of which Mr. Maddams is also Secretary. At the meeting held on 7 April, the members present were unanimous in recording their good wishes.

It may be necessary to make some adjustment to our published programme of speakers during the summer months as we anticipate having the pleasure of the company of Mr. Harry Hall sometime during that period. The Council feels that this would be too good an opportunity to miss.

The Editor

SOCIETY DIRECTORY

(see Editorial)

Addresses of Members: for the purpose of contacting them	The Editor
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1964	*Subject*	*Lecturer*	*Table Show*
June 9	Opuntias	Mr. L. E. Newton	One Opuntia
July 7	(SHOW) Discussion on composts	Mr. W. F. Maddams	Cactus in fruit
August 11	Preparing for a Show	Selected	One Notocactus
September 1	(SHOW) 'Continental Trip'	Mr. C. E. Innes	One Crassula

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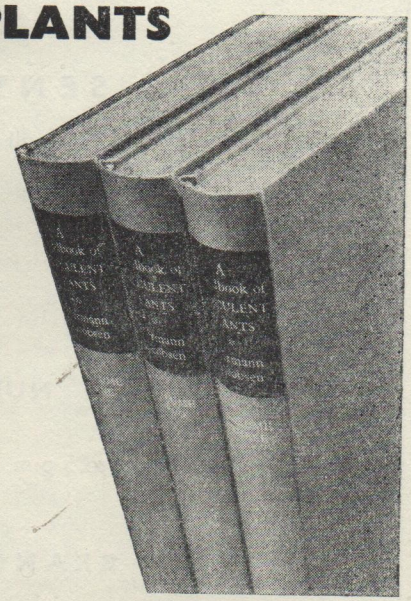

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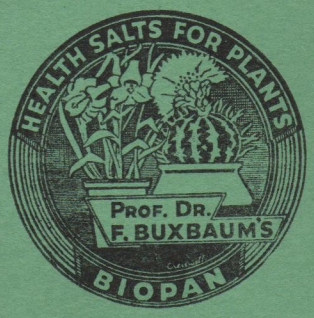

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Applications will be dealt with in strict rotation and your co-operation in following the instructions carefully is of great assistance in the efficient carrying out of the great volume of work which is carried out by our "spare time" workers.

No correspondence or packing is to be sent with your application, as the inclusion of such only delays handling the application.

SEED DISTRIBUTION 1964 - CACTI

812 Bergerocactus species
713 Cereus dasyacanthus
714 rosei
823 Copiapoa lembeckii
705 Coryphantha aggregata
709 bumamma
774 elephantidens
710 pseudonickelsae
711 scolymoides
712 Dolichothele aylostera
731 Echinofossulatos albatus
700 Echinopsis decaisneana
537 huettii
831 mirabilis
743 Epiphyllum hybrid "Mauvette"
715 Gymnocactus beguini senilis
827 Gymnocalycium albispinus
826 asterium
744 denudatum
825 hennesii
806 marsonerii
735 mazanensa
539 multiflorum
734 spegazzinii
701 sutterianum
706 Hamatocanthus hamatocanthus
824 Harrisia guelichii
733 Leuchtenbergia principis
540 Lobivia bruchii
808 cinnabarina
541 formosa
542 huascha
543 longispina
544 Malacocarpus corynodes
702 vorwerkianus
746 Mammillaria alamensis
716 applanata
807 brauniana
717 calacantha
718 canalensis
719 carretii
720 Mammillaria discolor
813 dolichocentra
var galeottii
815 euthele
816 guaymensis
721 guerreronis
523 hahniana
707 heyderi
722 hidalgensis
817 megallanii
548 meiacantha
818 neoschwarziana
526 perbella
819 pilensis
723 pseudosupertexta
724 pygmaea
532 sempervivi
820 umbrina
810 uncinata
821 wiessingerii
725 winteriae
822 zeyeriana
703 Melocactus bahiensis
726 Neolloydia grandiflora
811 Neoporteria acutissima
546 Notocactus graessneri
760 leninghaussii
745 mammulosus
761 pampeanus
704 rutilans
740 Opuntia soehrensii
739 sulphurea
830 Parodia massii v. atroviridis
738 mutabilis
828 rigida
829 rubellihamata
814 sanguiniflora
737 rubiflora
728 Pelecyphora aselliformis
729 Porfiria schwarzii
730 Rathbunia alamosensis
732 Strombocactus disciformis
830 Society's Choice.

SEED DISTRIBUTION 1964 OTHER SUCCULENTS

801 Aloe globuligemma
674 microstigma
775 Argyroderma latipetalum
776 Carpanthea pomeridiana
777 Carpobrotus edulis
676 Cephalophyllum ceresianum
632 diversiphyllum
770 gravile
677 spongiosum
678 worcesterense
409 Cheiridopsis cuprea
771 madrifolia
780 Cotyledon orbiculata
781 pillansii
657 Delosperma brunnthaleri
913 mahanii
660 saturatum
661 steytlerae
684 Didymaotus lapidiformis
644 Dyckia brevifolia
646 Euphorbia avasmontana
783 burmannii
647 officinarum
785 Faucaria britteniae
784 duncanii
900 Gasteria verriculosa
790 Gibbaeum fissoides
621 haagei
788 gibbosum
424 pachypodium
789 pubescens
633 shandii
425 schwantesii
625 velutinum
773 Glottiphyllum regium
620 Herreanthus meyeri
764 Jacobsenia hallii
748 Jatropha podagrice
791 Kalanchoe hirta
792 thyrsiflora
741 tomentosa
794 velutina
669 Lampranthus aurantiacus
668 falcatus
800 veruculatus
795 Leipoldtia britteniae
901 Lithops annae
758 bella
752 bella v witputz
902 bromfieldii
610 Lithops comptonii
753 dentritica
611 framesii
433 fulleri
903 helmuti
614 kuibisensis
907 insularis
756 kunjasensis
750 karasmontana
904 lericheana
443 marmorata
759 marmorata v. concordia
755 marginata
908 mennellii
445 meyeri
618 mickbergensis
446 mundtii
757 opalina
905 otzeniana
449 salicola
749 salicola v. reticulatus
452 triebneri
906 turbiniformis
454 unikosensis
604 weberi
912 werneri
911 mixed
909 vallis-mariae
690 Machairophyllum stayneri
455 Malephora crocea purpureacea
663 lutea
664 thunbergii
765 Monilaria species
799 Nycteranthus primulinus
772 Pleiospilos species
796 optatus
910 hilmari
797 willowmorensis
653 Portulaca poellnitziana
694 Ruschia approximata
665 laxipetala
666 piscodora
667 uncinella
635 vaginata
637 Smicrostigma viride
695 Stayneria littlewoodii
654 Tischleria peersii
766 Trichodiadema densum
769 sp. nova.
768 uitenhage
763 setuliferum
920 Society's Choice.

Exhibition of Cacti and Succulents

(Organised by the Cactus and Succulent Society of Gt. Britain)

JULY 7th and 8th, 1964

at the

ROYAL HORTICULTURAL SOCIETY'S

NEW HALL

Greycoat Street, London, S.W.1

Tuesday, 12 noon to 6 p.m.

Wednesday, 10 a.m. to 5 p.m.

PROGRAMME

JUNE 27th	... ...	**LATEST DATE FOR RECEPTION OF APPLICATION FORMS.**
July 6th		
2 p.m. to 8 p.m.	...	Staging may be begun.
July 7th, 10 a.m.	... ...	All exhibits must be ready for judging and exhibitors will leave the Hall to be re-admitted when judging is complete.
12 noon to 6 p.m.	...	EXHIBITION OPEN.
July 8th		
10 a.m. to 5 p.m.	...	„ „
July 8th, 9 p.m.	... ...	All exhibits must be cleared by this time.

COMPETITIVE CLASSES OPEN TO MEMBERS.

Class 1. Three Echinocactanae.
„ 2. Three Coryphanthanae (includes Mammillaria).
„ 3. Three Coryphanthanae (for Members who have not previously won a First in any Class).
„ 4. Three Cereeanae.
„ 5. Three Echinocereeanae (excluding Rebutias and Lobivias).
„ 5a. Three Rebutias and/or Lobivias.
„ 6. Three Cacti (any genera).
„ 7. Three Cacti (for Members who have not previously won a First in any class).
„ 8. One Specimen Cactus.
„ 9. One Specimen Succulent (other than Cactus).
„ 10. Cacti raised from seed by Exhibitor (sown on or after 1st January, 1962, space not exceeding 2 ft. 6 ins. by 1 ft.)
„ 10a. Cacti raised from seed by Exhibitor; over two years old (space not exceeding 2 ft. 6 ins. by 1 ft., not more than 12 plants).
„ 11. Miniature Garden of Cacti or Succulent plants (not mixed) to cover space not larger than 18 ins. x 18 ins.
„ 12. Three Dwarf Opuntias.
„ 13. Three Agaves, Aloes, Gasterias and/or Haworthias.
„ 14. Three Euphorbias.
„ 15. Three Succulents other than Cacti.
„ 16. Three Succulents other than Cacti (for members who have not previously won a First in any Class).
„ 17. Six South African Succulents in pots not larger than 3½ ins. inside diameter.
„ 18. Group of Cacti and/or Succulents to cover table space not larger than 3 ft. by 2 ft. 6 ins.
„ 19. Three Cacti and/or other Succulents (for Juniors under 18 years).
„ 20. Branch Exhibit. Group of Cacti and/or Succulents to cover space not larger than 4 ft. by 2 ft. 6 ins.
„ 21. One Mammillaria rhodantha.

In any Class it is not essential that all the plants shown should be different species, but the number of species shown will be taken into consideration.

SHOW REGULATIONS

1. **Eligibility of Exhibitors.**—All members of the Society who do not earn any part of their livelihood by growing cacti or succulents are eligible to compete. The disposal of surplus plants from time to time to Nurserymen does not render members ineligible.
2. **Entries.**—All entries and applications for space must be received by the Hon. Secretary not later than June 27th. An entry form accompanies this schedule; extra copies may be obtained from the Hon. Secretary.
3. **Entry Fees.**—There will be a fee of 6d. per class entry.
4. **Acceptance of Entries.**—The Council reserves the right to refuse any exhibit without being called upon to give any reason or explanation.
5. **Number of Exhibits**—No competitor may enter more than one exhibit in any one class.
6. **Cancellation of Entries.**—Any entrant who is unable to exhibit as arranged should notify the Hon. Sec. at least two days before the show.
7. **Exhibits.**—Exhibits must be the property of the exhibitor, and the plants must have been in the competitor's possession for at least six months before the date of showing.
8. **"Genus" and "Species."**—The term "genus" refers to the larger groups into which plants are divided, *e.g.* Echinocactus, Opuntia, Stapelia, etc. The term "species" refers to the divisions within the genus, *e.g.* Echinocactus grusonii, E. electracanthus, etc.
9. **Staging.**—The exhibits may be staged any time between 2 p.m. and 9 p.m. on Monday, day prior to the show or between 8 a.m. and 10 a.m. on Tuesday, first day of show, and must be completed and ready for judging by 10 a.m. on that day.
10. **Position.**—The Officers of the Society will decide the position of each exhibit.
11. **Labelling.**—All plants should be clearly labelled. Errors of naming will not disqualify, but correctness will be taken into account by the Judges.
12. **Entry Cards.**—Cards corresponding to the entries should be obtained from an officer of the Society and placed with each exhibit before judging.
13. **Judging.**—The judging will be conducted under the R.H.S. Horticultural Show handbook 1953 or any amendment thereto where applicable. All exhibitors must leave the Hall at 10 a.m. when judging begins, and will not be re-admitted until judging is finished.
14. **Awards.**—Awards will be withheld or modified if the number or standard of the exhibits in any class are not adequate to warrant the giving of the full award. Full prize money in any class is subject to a minimum of five entries, except Classes 18 and 20.
15. **Objections.**—Any objections or protests must be made in writing to an officer of the Society within two hours of the opening of the Exhibition. In all cases the decision of the Council is final.
16. **Removal of Exhibits.**—No alteration may be made in the exhibits after judging, and no plants may be removed before the advertised time of closing without the consent of the Hon. Secretary. After closing time exhibitors are requested to remove their exhibits by 9 p.m. on Wednesday, the day of closing, unless special arrangements have been made.

see overleaf

APPLICATION FORM

CACTUS AND SUCCULENT EXHIBITION

to be held at the

ROYAL HORTICULTURAL SOCIETY'S NEW HALL

Greycoat Street, London, S.W.1

Tuesday, July 7th and Wednesday, July 8th, 1964

Entry form to be filled in and returned to the Hon. Secretary, Mr. K. H. WALDEN, 152 Ardgowan Road, Catford, London, S.E.6, **not later than** June 27th; it would greatly facilitate the work of the Exhibition Committee if forms were returned at an earlier date.

COMPETITIVE EXHIBIT

I wish to enter in the following Classes:—

and enclose Entrance Fee(s) of s. d.

I undertake to abide by the Regulations as set forth in this Schedule, and declare that the plants shown have been in my possession for at least six months.

Exhibitor's Signature .....

Address .....

.....

17. **Liability for Loss.**—All exhibits, personal property, etc, will be at the risk of the exhibitors and no responsibility is accepted by the Cactus and Succulent Society, nor by the Royal Horticultural Society for loss or damage by theft, fire, water, accident or any other cause whatsoever.

Banksian Medal presented by the Royal Horticultural Society to the winner of the largest total amount of money in prizes in the individual classes at the two Shows.

The Society's Challenge Trophies and Prizes will be awarded, at the Annual General Meeting, as follows:—

Sir William Lawrence Cup for Cacti. Evelyn Theobald Cup for Succulents.
P. V. Collings Cup for Euphorbias.
R. S. Farden Memorial Bowl for Group. Class 18.
Mrs. E. B. Pryke Howard Cup for Succulents. Class 17.
Mrs. J. A. Luty Wells Cup for 3 Cacti.
Challenge Shield for Juniors. Class 19.

The above Trophies will be awarded for the highest aggregate points gained at both Shows during the year.

S. J. Pullen Cup for Best Miniature Garden.
Mrs. A. Hedges Cup for Succulents raised from seed.
Sarah Cutler Memorial Cup. Class 21.

Amateur Gardening Medals and Certificates for outstanding exhibits will be awarded at the discretion of the judge.

Prizes will be given in accordance with the judges' awards as follows :—
1st ; 10/- & Certificate. 2nd : 7/6 & Certificate. 3rd : 5/- & Certificate.
Classes 3, 7, 16, 19. 1st : 7/6 & Certificate. 2nd : 5/- & Certificate. 3rd : 3/6 & Certificate.
Class 18. 1st : £1 & Certificate. 2nd : 10/- & Certificate. 3rd : 5/- & Certificate.
Class 20. 1st : £5 & Certificate. 2nd : £3 & Certificate. 3rd : £2 & Certificate.

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famous Dahlia Expert

Amateur Gardening

PLACE A REGULAR ORDER WITH YOUR NEWSAGENT

Exhibition of Cacti and Succulents

(Organised by the Cactus and Succulent Society of Gt. Britain)

SEPTEMBER 1st and 2nd, 1964

at the

ROYAL HORTICULTURAL SOCIETY'S

NEW HALL

Greycoat Street, London, S.W.1

Tuesday, 11 a.m. to 6 p.m.

Wednesday, 10 a.m. to 5 p.m.

PROGRAMME

AUGUST 22nd	...	**LATEST DATE FOR RECEPTION OF APPLICATION FORMS.**
August 31st		
2 p.m. to 8 p.m.	...	Staging may be begun.
September 1st, 10 a.m.		All exhibits must be ready for judging and exhibitors will leave the Hall to be re-admitted when judging is complete.
11 a.m. to 6 p.m.	...	EXHIBITION OPEN.
September 2nd		
10 a.m. to 5 p.m.	...	„ „
September 2nd, 9 p.m.	...	All exhibits must be cleared by this time.

COMPETITIVE CLASSES OPEN TO MEMBERS.

Class 1. Three Echinocactanae.
„ 2. Three Coryphanthanae (includes Mammillaria).
„ 3. Three Cereeanae.
„ 4. Three Echinocereeanae (excluding Rebutias and Lobivias).
„ 4a. Three Rebutias and/or Lobivias.
„ 5. One Specimen Succulent (excluding Cactus).
„ 6. Three Faucarias and/or Stomatiums.
„ 7. Three Euphorbias.
„ 8. Three Agaves, Aloes and/or Gasterias.
„ 9. Three Haworthias.
„ 10. Three Echeverias and/or Cotyledons.
„ 11. Six Stemless Mesembryanthemums.
„ 12. Three Stemless Mesembryanthemums (for members who have not previously won a First in any Class).
„ 13. Three Succulents other than Cacti.
„ 14. Three Succulents other than Cacti (for members who have not previously won a First in any Class).
„ 15. Three Stapeliads.
„ 16. Succulents other than Cacti raised from seed sown by the Exhibitor, on or after 1st January, 1962, space not exceeding 2 ft. 6 ins by 1 ft.
„ 17. Six South African Succulents in pots not larger than 3½ ins. inside diameter.
„ 18. Group of Cacti and/or Succulents to cover table space not larger than 3 ft. by 2 ft. 6 ins.
„ 19. Three Cacti and/or other Succulents (for Juniors under 18 years).
„ 20. Container of Succulents (excluding Cacti). Not larger than 12 ins. by 12 ins.

In any Class it is not essential that all the plants shown should be different species, but the number of species shown will be taken into consideration.

SHOW REGULATIONS

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to be held at the

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Greycoat Street, London, S.W.1

Tuesday, Sept. 1st and Wednesday, Sept. 2nd, 1964

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P. V. Collings Cup for Euphorbias.

R. S. Farden Memorial Bowl for Group. Class 18.

Mrs. E. B. Pryke Howard Cup for Succulents. Class 17.

Mrs. J. A. Luty Wells Cup for 3 Cacti.

Challenge Shield for Juniors. Class 19.

W. Denton Memorial Medal for six Stemless Mesembryanthemums.

The above Trophies will be awarded for the highest aggregate points gained at both Shows during the year.

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Mrs. A. Hedges Cup for Succulents raised from seed.

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1st ; 10/- & Certificate. 2nd : 7/6 & Certificate. 3rd : 5/- & Certificate.
Classes 12, 14, 19. 1st : 7/6 & Certificate. 2nd : 5/- & Certificate. 3rd : 3/6 & Certificate.
Class 18. 1st : £1 & Certificate. 2nd : 10/- & Certificate. 3rd : 5/- & Certificate.

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